

Appl. No. : 10/691,471
Filed : October 21, 2003

REMARKS

In response to the Office Action mailed April 4, 2005, Applicant has amended the application as above. No new matter is added by the amendments as discussed below. Applicant respectfully requests the entry of the amendment and reconsideration of the application in view of the amendments and the remarks set forth below.

Discussion of Claim Amendments

Claims 2, 13, 29 and 36 have been cancelled. Claims 1, 10, 12, 21, 27, 30, 32, 34, 38 and 40 have been amended. Claims 43-48 have been added. Upon the entry of the amendments, Claims 1, 3-12, 14-28, 30-35 and 37-48 are pending in this application. The amendments to Claims 1, 12, 27 and 34 are supported, for example, by original Claims 2, 13, 29 and 36, respectively. The amendments to Claim 40 are supported, for example, by original Claim 36. The amendments to Claim 41 are supported, for example, by the specification at page 4, lines 32-36. The amendments to Claims 10, 21, 30, 32, 38 and 40 are merely for clarification, and do not narrow the scope of protection. New Claims 43-48 are supported, for example, by Figure 2. Therefore, the amendments to the claims do not introduce any new matter.

Discussion of Claim Rejections Under 35 U.S.C. § 102(b)

The Examiner has rejected Claims 1-5, 7, 34-36 and 40 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,600,574 (Reitan). However, all of pending claims are patentably distinguished from the prior art as discussed below.

Rationale of 35 U.S.C. 102

“For a prior art reference to anticipate a claim under 35 U.S.C. § 102, every element of the claimed invention must be identically shown in a single reference.” *Diversitech Corp. v. Century Steps, Inc.*, 850 F.ed 675, 677, 7 USPQ 2d 1315, 1317 (Fed. Cir. 1988).

Discussion of Patentability of Independent Claims 1, 34 and 40

Independent claim 1, as amended, recites, among other things, “delivering a report of the operational performance of an X-ray film processor.” Each of independent Claims 34 and 40 has a similar feature. Applicant respectfully submits that Reitan does not disclose the above-indicated feature.

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Reitan discloses a system, apparatus and method for testing the functional components of an electronic digital imaging system. *See column 2, lines 48-51.* The system includes an image acquisition device (such as a digitizer or scanner), an image storage device, an image display device and a network connecting the devices (Figure 2). In particular, Reitan states that the x-ray image is first taken and the film cassette will be sent to film processing . . . the exposed film cartridge is processed and immediately transferred onto the imaging system through the digitizer (210) where it is stored . . . for viewing by the image review station. *See column 6, lines 34-41.* The automated image quality control system detects whether aberrations have been introduced into the viewed, stored or printed digital images as they are processed by the system. . *See column 7, lines 19-25.*

However, Reitan does not disclose “delivering a report of the *operational* performance of *an X-ray film processor.*” Reitan states that the system automatically determines the performance of functional components (display 20, scanner 10, memory 30, image hardcopy device 40) of an electronic digital imaging system with the use of predetermined parameters (pixel value integrity, geometric accuracy, spatial resolution, etc.). *See column 6, lines 57-59, Table 1 and Figure 1.*

Reitan also discloses that in the preferred embodiment, the image hardcopy device 40 is a laser imager. Furthermore, referring to Table 1, all parameters are applied to the laser imager (LI) to test the performance of the laser imager (LI). Reitan further discloses that:

To test the output of the laser imager 417, stored digital reference images corresponding to the expected images defined in files 401 and 402 are retrieved from the image server 413 (corresponding to the disk storage system 204 of the image storage device 30 of FIG. 2). The laser imager 413 will produce printer sample films 420 and 421 of the expected reference images defined in definition files 401 and 402, respectively. The laser imager exposes x-ray film or the like and processes the film through film processor 418, which is an integral part of the image hard copy device 40.

See column 20, lines 47-56 and Figure 4.

That is, the laser imager (417) processes the film with the help of the film processor (418). The Reitan reference discloses determining the performance of the laser imager (417), but does not disclose “determining the performance of the film processor (418).” Furthermore, since in

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Reitan the film processor (418) only assists the laser imager (417) to process the film, Applicant respectfully submits that the Reitan system does not need to independently determine the performance of the film processor (418).

In view of the above, Applicant respectfully submits that Reitan does not anticipate independent Claims 1, 34 and 40 since the prior art reference lacks in at least the above-recited feature of the claimed invention. Thus, Claims 1, 34 and 40 are allowable over Reitan.

Discussion of Patentability of Dependent Claims

Claims 3-5, 7 and 35 depend from their base Claims 1 or 34, and further define additional technical features of the present invention. In view of the patentability of their base claims, and in further view of the additional technical features, the dependent claims are patentable over the Reitan reference.

Discussion of Rejection of Claims under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 6, 8, 12-19 and 23-30 under 35 U.S.C. § 103(a) as being unpatentable over Reitan. Applicant respectfully submits that all of the rejected claims are allowable over the prior art.

Rationale of 35 U.S.C. 103

In order to provide a *prima facie* showing of obviousness under 35 U.S.C. § 103, all the claim limitations must be taught or suggested by the prior art. *See, e.g., In re Royka*, 490 F. 2d 981, 180 U.S.P.Q. 580 (CCPA 1974). MPEP 2143.03.

Discussion of Patentability of Independent Claims 12, 23 and 27

Independent Claim 27, as amended, includes the above-recited feature of Claim 1, and thus Claim 27 is allowable over Reitan for at least the same reasons. Claim 12 includes the above-recited feature of Claim 1 and further recites an image scanner having *at least 16 bit greyscale capability*. In view of the patentability of independent Claim 1, and in further view of the additional technical feature, Claim 12 is patentable over the Reitan reference.

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Independent Claim 23 recites, among other things, a flat bed scanner having *at least 16 bit greyscale capability*. Reitan does not disclose this feature. Reitan at best discloses a 12 bit scanner. *See Column 22, lines 20-21.* The Examiner asserts that “the use of align marks and 16 bits greyscale is well known for flatbed scanners. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a 16 bit greyscale scanner with alignment marks (template) instead of the 12 bit scanner motivated by the desire to have decreased quantization error and decreased alignment error (column 13).” Applicant respectfully disagrees. First of all, Applicant submits that the cited portion of Reitan (column 13) does not provide such a motivation (the desire to have decreased quantization error and decreased alignment error). Rather, the reference discloses that:

In all of the examples described with the present invention, the number of films, targets or phantoms, while shown to be two, may be of any number. It is always desired to limit the number of phantoms so as to minimize the time required for acquisition and hence the overall quality assessment.

See Column 13, lines 1-5.

That is, Reitan provides a desire to reduce the number of films, targets or phantoms so as to minimize the acquisition time. Applicant respectfully submits that this desire is irrelevant to “the desire to have decreased quantization error and decreased alignment error” pointed out by the Examiner.

Furthermore, Reitan states that:

LUT A 601 is incorporated in the Lumisys film digitizer 210. LUT A receives a 12 bit quantity MOD[0:11], corresponding to the Measured Optical Density output by the A/D converter of the Lumisys apparatus. This value is calibrated by Lumisys to represent directly the film density as an equivalent number of milli-OD (0.001 OD) units, with a maximum usable output of 3600, corresponding to 3.6 OD (see FIG. 8). As a 12 bit unsigned integer, values for MOD up to 4095 are possible.

See Column 22, lines 20-28.

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Applicant respectfully submits that a skilled person would not have been motivated to upgrade a 12 bit scanner to at least 16 bit scanner since in the Reitan system, the 12 bit scanner is sufficient to manage the maximum usable output (3600) of the optical density level (OD), which is well under 4095 (12 bit value). Thus, Applicant respectfully submits that there is no motivation in Reitan to modify a 12 bit scanner to at least 16 bit scanner to arrive at the claimed invention.

Furthermore, Applicant respectfully submits that it is not sufficient for the Examiner merely to assert that “the use of align marks and 16 bits greyscale is well known for flatbed scanners. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a 16 bit greyscale scanner with alignment marks (template) instead of the 12 bit scanner.”

A recent court case held that information claimed by the Examiner to be “well known” in the industry but which is not supported in the record is an improper basis for finding motivation in the prior art to support a ruling of obviousness. *See In re Beasley, Fed. Cir., No. 04-1225, 12/7/04.* The Federal Circuit held that such generalized claims of what the reference teaches and of what the skilled artisan would have been “well aware” do not satisfy the level of specificity required under the MPEP. Such a statement amounts to no more than a conclusory statement of generalized advantages and convenient assumptions about skilled artisans. The Federal Circuit further held that, with respect to core factual findings, it is required that the Examiner point to some concrete evidence in the record rather than relying on its assessment of what is “well recognized” or of what a skilled artisan would be “well aware.” It is respectfully submitted that, in this case, the Examiner has failed to satisfy these requirements.

In view of the above, Applicant respectfully submits that independent Claims 12, 23 and 27 are neither taught nor suggested by Reitan, and thus Claims 12, 23 and 27 are patentable over the prior art reference.

Discussion of Patentability of Dependent Claims

Claims 6, 8, 14-19, 24-26, 28, and 30 depend from their base Claims 1, 12, 23 or 27, and further define additional technical features of the present invention. In view of the patentability of

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their base claims, and in further view of the additional technical features, the dependent claims are patentable over the Reitan reference.

Discussion of Patentability of New Claims 43-48

New Claim 43 includes all of the limitations of Claim 1, and further recites "forming a *characteristic curve* associated with an optical density of each of *twenty one exposure steps*, wherein the predetermined performance indicators are calculated from analyzing the characteristic curve. Each of new Claims 44-48 includes all of the limitations of Claims 12, 23, 27, 34 and 40, respectively, and further includes that the test image comprises a sensitometric strip having *twenty one exposure steps*. Applicant respectfully submits that Reitan does not disclose the above-indicated features of new Claims 43-48. Furthermore, since at least the base independent claims are allowable, new Claims 43-48 are patentable over the cited reference for at least the same reasons and for its additional features.

CONCLUSION

In view of Applicant's foregoing amendments and remarks, it is respectfully submitted that the present application is in condition for allowance. Should the Examiner have any remaining concerns which might prevent the prompt allowance of the application, the Examiner is respectfully invited to contact the undersigned at the telephone number appearing below.

Respectfully submitted,

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